

Application No. 09/575237
Preliminary Amendment

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1. (currently amended) A solid electrolyte battery comprising:

a positive electrode;

a negative electrode disposed opposite to said positive electrode;

a separator disposed between said positive electrode and said negative electrode; and

~~at least one~~ a solid electrolyte disposed between said positive electrode and said separator and ~~at least one solid electrolyte disposed~~ between said separator and said negative electrode wherein said solid electrolyte comprises a mixture of a polymer and a swelling solvent present in a ratio of from 1:5 to 1:10;

wherein said separator comprises a polyolefin porous film having a thickness of from 5 μm to 15 μm and a volume porosity of from 25% to 60%;

wherein the impedance in said solid electrolyte battery is greater than the impedance realized at the room temperature when the temperature of said solid electrolyte battery is from 100°C to 160°C; and

wherein said solid electrolyte has a thickness of from 5 μm to 19 μm .

Claim 2. (previously presented) A solid electrolyte battery according to claim 1, wherein said porous polyolefin film contains polyethylene.

Claim 3. (original) A solid electrolyte battery according to claim 1, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.

Claim 4. (original) A solid electrolyte battery according to claim 1, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.

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Claim 5. (currently amended) A solid electrolyte battery according to claim 3, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, ~~poly~~propylene carbonate and LiPF_6 .

Claim 6. (previously presented) A solid electrolyte battery according to claim 5, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2,4-difluoroanisol.

Claim 7. (previously presented) A solid electrolyte battery according to claim 6, wherein the content of each of vinylene carbonate and 2,4-difluoroanisol is not greater than 5 wt% of the overall weight of said electrolyte.

Claim 8. (original) A solid electrolyte battery according to claim 7, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

Claim 9. (currently amended) A solid electrolyte battery according to claim 8, wherein a polymer is used which contains polyvinylidene fluoride and polyhexafluorop~~oly~~propylene.

Claim 10. (currently amended) A solid electrolyte battery according to claim 9, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and polyhexafluorop~~oly~~propylene such that polyhexafluorop~~oly~~propylene is contained in a quantity greater than 8 wt%.

Claims 11-38. (canceled)